

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
January 1959	Inauguration of pure jet commercial airline operations at LAX.
July 1959	<p>Los Angeles Sound Abatement Coordinating Committee (LASACC) was formed at LAX, bringing together all segments of the air transportation industry to work on the mutual problem of noise. Participants: LADOA, Federal Aviation Administration, Air Transport Association, Airline Pilots Association and representatives from all commercial air carriers operating at LAX. This committee's activities continued through the 1960's and early 1970's.</p> <p>Under this effort, one step taken was that FAA was to notify the Department of "early turns", missed approaches, and go arounds. The FAA was also to develop special air traffic procedures to assist the pilot in identifying the shoreline during inclement weather conditions. The Department was to develop follow-up procedures to alert the operator of violations of the no "early turn" policy.</p> <p>The Executive Director of the LASACC, Walter Collins, joined the Department of Airports in 1974 as the first Noise Abatement Officer working under Bert Lockwood, the Assistant General Manager in charge of noise issues. This group evolved into the current Noise Management Bureau.</p>
September 1959	BOAC resolution called for all departing aircraft to maintain a straight course at LAX, with no turn to be made until reaching the ocean shoreline.
October 7, 1959	Airport regulations established covering jet engine run-up in airline maintenance areas at LAX.
October 15, 1959	Airport regulations established covering easterly take-offs of jet aircraft at LAX.
October 22, 1959	FAA office raised elevation of the Instrument Landing System glide slope from 2.75 degrees to 3 degrees at LAX.
April 4, 1960	Special Civil Air Regulation No. 438 set up special aircraft rules for aircraft operating at LAX to provide noise relief to the surrounding area. (Board file 1704.0, 3-2-1960).
December 20, 1961	BOAC urged "massive technical attack" by NASA and FAA on the jet noise problem: Establishment of federal aircraft noise standards and noise abatement rules; and design standards for new aircraft, setting maximum limits for noise output. (Resolution No. 1856).
February 25, 1963	Bolt, Beranek and Newman, acoustical consultants, completed report on ground run-up noise problem at LAX.
September 26, 1963	In light of federal participation in development of U.S. supersonic transport, BOAC urged efforts toward design of SST capable of using existing airports, with noise level lower than existing jet supersonic transports.
1965	LADOA acquired 379 parcels in Playa del Rey.
1967	LADOA acquired 876 parcels in East Westchester.

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August 2, 1967	LADOA joined with Air Transport Association and Aerospace Industries Association with \$10,000 appropriation for study of aircraft noise, its effects and appropriate land use planning. (Resolution No. 4294).
October 18, 1967	Wyle Laboratories, acoustical firm, awarded contract for pilot study of effects of acoustically treating residences to diminish noise impact. (Resolution No. 4411).
November 1967	Los Angeles Department of Airports and City of Ontario co-sign Joint Powers Agreement initiating Department management of ONT.
June 1968	Pacific Southwest Airlines started first commercial jet service at ONT with B737's to San Francisco.
April 1969	Commission adopted policy stating that Van Nuys Airport would be used exclusively for general aviation and air taxi operations utilizing aircraft of not more than 12,500 pounds.
May 21, 1969	Agreement approved with four school districts (Inglewood Unified, Centinela Valley Unified, El Segundo Unified, and Lennox) for experimental acoustical treatment of classrooms. (Resolution 5227)
October 22, 1969	BOAC resolved that "no aircraft hereafter developed for use in commercial aviation shall be permitted the use of Los Angeles International Airport in the event that such aircraft imposes total noise levels upon adjacent communities which would exceed the total noise level created by the current Boeing 707-320-C." (Resolution No 5456, rescinds Resolution No. 2059).
1970	LADOA acquired 374 parcels in Playa del Rey, and 691 parcels in West Westchester.
February 11, 1970	Management directed to establish standards to reduce ground noise at LAX (Resolution No. 5592).
March 10, 1970	Mayor Sam Yorty urged retrofitting of existing aircraft to provide relief from noise impact. Resolution presented at National League of Cities Congressional Workshop in Washington, D.C.
March 18, 1970	BOAC Resolution No. 5619 adopted Noise Abatement Procedures developed by LASACC and the Department includes them in the LAX Operations Manual. Those procedures included the "no turn before the shoreline" provisions previously approved by the BOAC. The procedures also provide for preferential flight tracks for approaches and departures, prohibitions against non-Part 36 aircraft departing eastward from midnight to 6:30 a.m., gate-hold procedures, prohibition against training flights and engine maintenance run-ups between 11:00 p.m. and 6:00 a.m.
April 8, 1970	Plans and specifications approved for aircraft noise monitoring system. (Resolution No. 5669).

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May 27, 1970	"Final Report on the Home Soundproofing Pilot Project for the Los Angeles Department of Airports", conducted by Wyle Laboratories for the LADOA, was presented to the Board. (Resolution 5752) A companion volume to this document was reprinted by the FAA in October 1977 entitled "Guide to the Soundproofing of Existing Homes Against Exterior Noise", which provided detailed specifications and instructions on sound insulating typical residential homes.
September 10, 1970	General Manager, Clifton A. Moore, in address to the National League of Cities, urged immediate retrofitting of aircraft not meeting FAR part 36 standards, pointing out that the estimated one billion dollar cost would be cheap compared to fragmented land acquisition in airport areas. Proposes ticket surcharge to finance project.
October 21, 1970	BOAC authorized execution of contract with L.W. Davidson & Associates for a feasibility study to evaluate a cost estimate for sound insulating the classrooms at St. Bernard's School in Playa del Rey. (Resolution 5974)
January 5, 1971	LADOA responded to FAA advance notice of proposed rule making for civil aircraft noise reduction retrofit requirements urging earliest possible retrofitting or retirement of earlier noisier jets.
April 21, 1971	Hewlett Packard awarded contract (\$218,050) to design, construct and install an aircraft noise monitoring system at LAX.
January 1972	Department banned helicopter training at Van Nuys Airport.
1972	FAA issued waiver for simultaneous departures off parallel runways. This extended the point at which departing aircraft must diverge fifteen degrees to no later than two miles from the end of the runway (rather than immediately). This point is over the Pacific Ocean instead of over land.
February 21, 1972	Two-segment approach, which keeps planes at a higher altitude to minimize noise, initiated by Pacific Southwest Airlines.
September 1972	Completed General J79/CJ805 jet engine test cell modification to reduce noise at ONT.
October 18, 1972	Cambridge Collaborative, Massachusetts acoustical engineering firm, awarded contract for study to determine effectiveness of sound barrier along north side of LAX. (Resolution No. 7356).
December 20, 1972	BOAC urged appropriate bodies to adopt legislation to achieve stronger methods than now exist for developing compatible land use in various communities surrounding LAX. (Resolution No. 7484-A).
December 20, 1972	BOAC supported five of 12 noise abatement policies proposed by elected representative of the LAX airport area communities, including reduced takeoff power, rolling start takeoffs, flat takeoff profile, steep approaches and no thrust reversers. (Resolution No. 7484).

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December 20, 1972	BOAC adopted five-point program (Resolution No. 7467) to diminish noise impact and liability: (1) preferential use of inboard runways and over-ocean operations from 11:00 p.m. to 6:00 a.m.; (2) east approaches restricted to FAR, part 36 aircraft; (3) a fleet noise rule to establish 100% FAR 36 aircraft at LAX by end of 1979. (Later revised by Board action and City Council adoption of LAX noise regulations, May 31, 1979.); (4) creation of a noise enforcement division within the DOA; (5) provision to terminate operating permit of any airline in repeated violation of preferential runway provision.
December 20, 1972	BOAC urged expedition of proceedings related to adoption by the Department of Transportation and the FAA of the proposed aircraft sound description system (ASCS) as a method of calculating aircraft noise impacts. (Resolution No. 7483).
April 29, 1973	Resolution No. 7467, (nighttime over-ocean approach and preferential runway use), originally adopted by Board, December 20, 1972, became effective.
June 1973	Completed General Electric CF6 Jet Engine Test Cell at ONT.
August 15, 1973	BOAC urged approval by Mayor and City Council of principal findings in the Summary of the EPA report on Aircraft-Airport Noise of July 27, 1973. (Resolution No. 7885).
August 15, 1973	BOAC endorsed Senator John V. Tunney's Senate Bill #227B, which required the Environmental Protection Agency to submit its final recommendations concerning aircraft and airport noise to the FAA on or before October 1973. (Resolution No. 7884).
1974	LADOA acquired 169 parcels in North Playa del Rey, 187 parcels in Emerson Manor, and 158 units in North Westchester.
March 21, 1974	Settlement of negotiations for removal by Hewlett Packard of noise monitoring system and refund of monies expended.
April 4, 1974	BOAC requested City of Los Angeles to join in urging Congressional legislation to amend Noise Control Act of 1972 specifying July 1, 1974 as the deadline for EPA submission of proposed aircraft and airport noise control regulations to the FAA, and December 1, 1974, as the deadline for adoption of the regulations by the FAA. (Resolution No. 8262).
April 18, 1974	Hydrospace Challenger, Inc., San Diego acoustical firm, awarded contract to install noise monitoring system at all airports. (Resolution No. 8859).
June 7, 1974	Resolution No. 7467 revised, changing 11:00 p.m. to 6:00 a.m. over ocean landings and take-offs to the hours of 12 midnight to 6:30 a.m., permitting operations from the east when weather conditions so dictate. Action includes approval of EIR (Resolution No. 8372).
July 24, 1974	In testimony before the subcommittee on Aeronautics and Space Technology of the House Committee on Science and Astronautics related to retrofitting of commercial aircraft, General Manager Clifton A. Moore, on behalf of the LADOA, strongly supported a position requesting the federal government immediately proceed with the sound absorbing materials (SAM) program as the least expensive program and one which would produce the most immediate benefit.

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September 25, 1974	BOAC urged FAA to proceed without delay in promulgating rules for the regulation of both the subsonic and supersonic noise of the Concorde and other supersonic transports. (Resolution No. 8595).
October 16, 1974	BOAC again urged FAA establishment of regulations related to supersonic aircraft noise and also preparation of an Environmental Impact Statement on effect of supersonic aircraft operations in the United States. (Resolution No. 8629).
February 24, 1975	Management directed to investigate possible areas of airport noise regulations in light of recent court ruling which appears to give the airport proprietor more authority in regulating aircraft operations. (Resolution No. 8859).
June 23, 1975	Management outlined proposed noise control regulations for LAX.
1976	Department and FAA issued directives stating that VNY takeoffs on runways 16L and 16R shall go straight out to flood basin before turning.
January 1976	Noise Monitoring System went into operation. In compliance with the State Noise Law, the system monitors, records and computes noise levels from fixed sites at LAX and Ontario International Airport.
January 26, 1976	BOAC adopted Resolution No. 9596, Ontario International Airport's noise abatement policy statement, to reduce aircraft noise impact and bring airport into compliance with state noise law at a maximum 15 MAP level. Provided for noise monitoring, land use controls, replacement runway, extension of existing runway, encouragement of noise reduction procedures by aircraft on approach and departure.
April 8, 1976	Judgement was issued in the public school lawsuits. In exchange for limited easements, funds of \$20,942,298 are paid to five school districts. The funds were to be used for sound insulation of classrooms in 34 facilities in the Los Angeles Unified School District (\$10.3 million), 14 facilities in the Inglewood Unified School District (\$5.9 million), one facility in the Centinela Valley Union High School District (\$0.8 million), nine facilities in the El Segundo Unified School District (\$1.5 million), and five facilities in the Lennox School District (\$2.5 million). New schools were to be constructed with sound insulation.
May 1, 1976	LADOA received notification that the noise monitoring system has been certified by the State of California Department of Transportation Division of Aeronautics. In compliance with the State Noise Law, the system monitored, recorded and computed noise levels from fixed sites at Los Angeles International and Ontario International Airports and utilizes a portable unit to receive and process data outside the periphery of the fixed system and at Van Nuys Airport.
June 16, 1976	Informal noise abatement procedures and preferential runway use program at Ontario International Airport adopted. East takeoff and west land patterns over unpopulated areas between 10:00 p.m. and 7:00 a.m. adopted.
December 16, 1976	California Department of Transportation granted variance from State Noise Standards for ONT.
June 1977	Noise Abatement Office at ONT officially established.

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September 15, 1977	BOAC adopted proposed noise program for Van Nuys Airport, including prohibition of formation takeoffs, high-speed low passes and jet training operations; Runway 16R designated as preferred runway for jets and a voluntary jet curfew between 10 p.m. and 7 a.m. (Resolution No. 10758).
December 12, 1977	BOAC authorized the transfer of \$70,900 to the Bureau of Public Buildings of the Department of Public Works, on behalf of the Department of Library, for sound insulation of the Westchester Public Library. (Resolution 10909)
February 1978	FAA, in response to LADOA suggestion, established Daggett-loop flight departure rule, a preferential flight track over the ocean returning at high altitude over LAX for eastbound flights, limiting noise over Palos Verdes, Malibu and Pacific Palisades.
May 1978	Lights installed at four corners of golf course at southern end of VNY to guide pilots to flood basin.
June 12, 1978	BOAC approved contract with Hilliard and Bricken to conduct noise analysis for Van Nuys Airport. (Resolution No. 11198).
May 31, 1979	BOAC Resolution No. 11650 resulted in enactment of Los Angeles Airport Noise Control Ordinance (City Ordinance No. 152,144) by City Council, signed by Mayor Bradley.
October 1979	24-hour Ansaphone was installed to register noise complaints at VNY.
1980	Permanent noise monitoring was initiated at VNY.
January 7, 1980	Amended judgement was issued in the public school litigation, establishing noise limits at each school.
April 2, 1980	California Department of Transportation issued a variance from State Airport Noise Standards at LAX.
May 20, 1980	Status report on soundproofing of schools presented to BOAC. Los Angeles had all of its 34 schools complete or nearing completion, Inglewood had 6 of 14 schools complete, Lennox had all of its five schools complete or nearing completion, El Segundo had closed two of the schools and was in progress on the remaining seven, and Centinela Valley was on hold while the fate of Lennox High School was determined.
October 8, 1980	BOAC reiterated policy limiting Van Nuys Airport operations to general aviation (private and corporate aircraft) and air taxi operations. (Resolution No. 12271. See also April 1969).
December 3, 1980	Test Sound Barrier along north side of LAX between Emerson Avenue and Westchester Golf Course dedicated. Built at a cost of \$410,000, 1500 foot, landscaped earth berm and concrete barrier follows sound attenuation recommendations by consultant, Cambridge Collaborative. Completed in August, 1979.
January 1981	Closed circuit noise monitoring system to detect nighttime run-ups installed in major airline maintenance areas with terminal in LAX Operations Office.

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January 7, 1981	BOAC adopted resolution encouraging, whenever possible and feasible, all new airport construction to provide electrical ground power for aircraft to minimize use of on-board auxiliary power units. (Resolution No. 12388).
June 17, 1981	BOAC adopted Noise Control Regulation for Van Nuys Airport, (Resolution No. 12655) restricting take-offs between 11:00 p.m. and 7:00 a.m. for aircraft having more than a 74 dba takeoff level, and nighttime repetitive operations.
August 31, 1981	Van Nuys Airport Noise Regulations enacted by City Council as Ordinance No. 155727.
September 23, 1981	BOAC urged FAA to operate Van Nuys control tower on a 24-hour basis (Resolution No. 12782).
January 1982	California Department of Transportation granted variance from State Noise Standards for ONT.
January 27, 1982	BOAC authorized management to develop a sound insulation program to be included as a mitigation program under the Los Angeles International Airport Noise Control/Land Use Compatibility (LAX-ANCLUC) Study. (Resolution 12926)
June 1982	Last of four fixed site noise monitoring stations completed at Van Nuys Airport. Five additional fixed site noise monitoring stations operative at Ontario International Airport. Display boards and teleprinters for hourly levels installed at VNY and ONT.
October 6, 1982	BOAC authorized a contract for \$100,000 with Wyle Laboratories for a two-phased feasibility study for sound insulating all residential structures on incompatible land within the expected 1987 CNEL 65 contour at LAX. (Resolution 13333)
October 27, 1982	BOAC reaffirmed Van Nuys Operating Policy, including ban on helicopter training. (Resolution No. 13369).
November 1982	Wyle Laboratories submitted Phase 1 report entitled "Development Plan for Retrofit Sound Insulation of Residences at Los Angeles International Airport" to the LADOA, containing a preliminary cost estimate and a program plan for Phase 2 of the feasibility study for sound insulating residential structures.
July 1983	Wyle Laboratories submitted Phase 2 report entitled "Development of a Sound Insulation Plan for Residences inside the CNEL 65 Contour for Los Angeles International Airport" to the LADOA.
August 22, 1983	California Department of Transportation issued a variance from State Airport Noise Standards at LAX.
September 1983	The Ontario Citizens Consultative Committee was formed to discuss ways to minimize airport noise in the residential community.
October 26, 1983	BOAC authorized the negotiation of a contract with Wyle Laboratories to test the sound insulation plan developed in the Phase 2 final report in a pilot program to validate the effectiveness of sound insulating 20 dwelling units around LAX. (Resolution 13978)

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February 15, 1984	BOAC approved a contract with Wyle Laboratories to conduct a validation program to acoustically treat 20 residential properties (known as the Phase 3 Validation Project). The purpose would be to validate the data on the costs, logistics and effectiveness of the procedures defined in Wyle's November 1982 Report (Development of a Sound Insulation Plan for Residences Inside the CNEL 65 Contour for LAX -- Phase 2 Report), and their application to a full-scale residential insulation program. (Resolution 14144)
June 6, 1984	FAR Part 150 Noise Compatibility Program approved by BOAC for LAX, resulting in FAA grant of \$1.7 million for noise abatement and redevelopment projects in the airport area, including possible areawide sound insulation based on results of a LADOA-funded test program. (Resolution No. 14340).
June 13, 1984	BOAC approved policies requiring that aircraft over 65,000 pounds be towed in to and out of Imperial Terminal, and restricting run-ups and the use of auxiliary power units at Imperial Terminal. (Resolution No. 14373).
September 12, 1984	BOAC accepted a FAA Grant Offer of \$2 million for the cost of implementing the first 6 elements of the LAX FAR Part 150 NCP, and also authorized \$400,000 as the required 20% local matching funds. These 6 elements included (1) ANCLUC Community Forum, (2) Inglewood/Lockhaven Revitalization (recycling of incompatible land uses), (3) Los Angeles County/Lennox Revitalization, (4) El Segundo Barrier Program, (5) Runway extension on the South Complex, and (6) Sound Insulation within the Noise Impact Area. (Resolution 14526)
November 1984	Department established Community Relations Office at VNY with noise abatement information role.
December 19, 1984	BOAC adopted 17-point Helicopter Noise Abatement Plan (Resolution No. 14647) for LAX in conjunction with a revised Helicopter Operating Policy. The Noise Abatement Plan included 13 items for immediate action and four specified as future goals, with several contingent on FAA action.
January 1985	All air carrier jet operations at LAX complied with noise standard contained in FAR Part 36, the federal regulation establishing maximum noise levels for certain aircraft weights, and with the LAX Noise Abatement City Ordinance.
February 6, 1985	Construction contract awarded to FTR International, Inc., for installation of sound-reducing materials in 20 homes near LAX for the final part of the Phase 3 Validation Project, which involved the application of the Phase 2 sound insulation plan to a full-scale residential insulation program. (Resolution 14702)
February 13, 1985	A regulation that banned older, noisy aircraft at LAX was upheld when a federal judge rejected Ecuatoriana Airlines attempt to have the regulation declared unconstitutional.
March 27, 1985	California Department of Transportation issued a variance from State Airport Noise Standards at LAX.
May 14, 1985	FAA approved LAX FAR Part 150 Noise Compatibility Program. The impacted jurisdiction near LAX became eligible to apply directly for FAA Part 150 grants.

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May 1985	Sound insulation of twenty (20) single family detached dwellings (Phase 3 Validation Project) was completed. Seven (7) dwellings were in Westchester/Playa del Rey, seven (7) were in El Segundo, three (3) were in Inglewood, and three (3) were in Lennox. Of these 20 dwellings that were sound insulated, five (5) dwellings were within the CNEL 75 dB contour, ten (10) dwellings were between the CNEL 70 dB and 75 dB contours, and five (5) dwellings were between the CNEL 65 dB and 70 dB contours.
June 1985	At the Department's request, FAA adjusted helicopter routes on the east side of VNY and increased operating altitudes.
June 1985	The Noise Abatement Bureau commenced what becomes an eleven-year effort to work with the FAA to establish FAA procedures and/or facilities to reduce early turns at LAX. This effort started with a request by the Public Relations Director of the Noise Abatement Officer to investigate the applicability and feasibility of installing a 'non-directional beacon' at LAX, similar to the one a Phoenix's Sky Harbor airport, to reduce the number of 'early turns'. The beacon proved problematic and the FAA agreed to commence the investigation and testing of alternate "in-flight" procedures and requirements.
June 12, 1985	California Department of Transportation approved Variance from State Noise Standards for ONT.
June 26, 1985	BOAC authorized submission of an FAA grant application for funds to implement "Community Compatibility Forum", to be comprised of local elected officials and aviation industry representatives to monitor implementation of the FAR Part 150 Noise Compatibility Program (Resolution No. 14935).
June 26, 1985	BOAC provided \$1 million to City of Inglewood to help purchase noise-impacted residential property and recycle it to compatible uses (Resolution No. 14936).
September 1985	VNY Citizens Advisory Council established.
September 13, 1985	United States Courts of Appeals for the Ninth Circuit affirmed the District Court's refusal to grant Ecuatoriana Airlines a preliminary injunction prohibiting the city from enforcing the LAX Noise Regulation.
October 9, 1985	Wyle Laboratories issued a final report entitled "A Validation Program for Sound Insulation on Dwellings in the Vicinity of Los Angeles International Airport" for Phase 3 of the Validation Project. The validation program was performed to determine and demonstrate the applicability and effectiveness of previously-developed pro-forma specifications for sound insulation of dwellings within the 65 dB CNEL noise contour.
February 5, 1986	BOAC approved a contract (DA 2118) with Wyle Laboratories to conduct a second demonstration project to provide acoustical treatment of 60 to 80 multiple and single family residential units near LAX (known as Phase 4--the Final Demonstration Phase). An appropriation of \$35,000 is also approved for Phase 1 of this second demonstration project. Results of demonstration project to be used as an informational guide for surrounding communities. (Resolution 15231)

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April 1, 1986	LADOA sent letter to all helicopter owners and operators at VNY reminding them of routes, altitudes and regulations.
May, 1986	Noise Abatement Office reconvened the LASACC, now called the Noise Abatement Coordinating Committee (NACC) to update the Noise Abatement Procedures at LAX originally adopted by the Board March 18, 1970 (Resolution No. 5619). The provisions are this time included in the LAX Rules and Regulations manual.
May 1986	Grant application for \$500,000 submitted to FAA for Van Nuys FAR Part 150 Study.
August 1986	After investigation and testing, FAA changed instructions for departures off Runways 24 to electronically identify the earliest point for turning (LAX VORTAC 305 degree radial). Previous instructions were potentially more subjective. FAA also changed instructions for FLIPR TWO departures off Runways 25 to turn after the VORTAC, rather than at the VORTAC. The procedures slightly reduced northerly early turns.
September 1986	Wyle Laboratories issued an initial report for the Final Demonstration Phase entitled "Dwelling Selection Criteria and Program Plan". This report describes the first step involved in the Final Demonstration Phase, whose purpose is to extend the validation process to dwelling units in multifamily buildings, which were not included in the 1985 application; and to implement sound insulation to a group of single family detached dwellings within a geographically compact area, and examine potential cost savings or revised procedures appropriate to larger scale programs.
September 24, 1986	BOAC accepted FAA grant for implementation of "Community Compatibility Forum".
November 5, 1986	BOAC authorized contract for Wyle Laboratories to conduct parts two and three of an acoustical treatment of homes near LAX (Phase 4--the Final Demonstration Phase). This included approximately 30 multi-family dwelling units in El Segundo, 30 multi-family dwelling units in Lennox, and 20 single family dwelling units in Playa del Rey. (Resolution 15611)
February 13, 1987	New procedure designed to reduce early turns by aircraft departing LAX was tested for 90 days by FAA. All westerly departures were to utilize the Santa Monica VOR 154 and 158 degree radials for turns of Runways 24 and 25, respectively, as the point to begin turns after takeoff. This procedure was not permanently adopted by the FAA.
May 20, 1987	LAX Supplemental Funding Policy adopted to provide up to \$5 million to surrounding jurisdictions for land use mitigation. (Resolution 15844) The SFP required aviation easements, limited the amount annually available to any one jurisdiction to \$2 million, and prohibited the use of SFP funds to provide the local matching share for FAA grants.
May 20, 1987	BOAC approved allocation of \$3 million to Inglewood to help purchase noise-impacted residential property and recycle it to compatible uses. (Resolution 15845)

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July 29, 1987	BOAC adopted resolution supporting proposed Federal rule making to reduce community aircraft noise impacts. (Resolution 15926)
August 20, 1987	Printing and publication of Van Nuys Airport "Quiet Pilot Posters," Jeppeson chart, and reformatted "Pilot Information Booklet."
August 31, 1987	\$3 million provided by LADOA to Inglewood to help purchase noise-impacted residential property and recycle it to compatible uses.
September 1987	Van Nuys Airport Citizens' Advisory Council was established.
October 6, 1987	BOAC authorized the negotiation of a contract with Tracor Applied Sciences to provide and maintain a noise monitoring system capable of supporting a total of 48 monitoring sites at LAX, Van Nuys and Ontario airports (Resolution No. 16003).
December 16, 1987	BOAC approved Memorandum of Agreement with Federal Aviation Administration for installation and operation of equipment to collect Automated Radar Terminal System (ARTS) flight information for LAX and ONT. (Resolution No. 16076)
January 6, 1988	BOAC approved Final Plans and Specifications of the project entitled "Sound Insulation of Single Family Dwellings in the Vicinity of Los Angeles International Airport"; also authorized the Executive Director to advertise for bids for sound insulation construction of sixteen single-family dwellings (in Playa del Rey) within the CNEL 70 contour, of the Final Demonstration Phase. (Resolution 16097)
January 8, 1988	24-hour aircraft noise complaint number, 64-NOISE, established by LADOA to assist local community in reporting noise complaints.
March 2, 1988	BOAC authorized execution of contract DA-2412 (\$2,131,943) with Tracor Applied Sciences for installation of a new noise monitoring system at LAX, VNY and ONT. (Resolution No. 16160)
June 30, 1988	Contract DA-2412 signed with Tracor Applied Sciences for installation of a new noise monitoring system at LAX, VNY and ONT, including acquisition of radar flight track data at LAX and ONT.
July 14, 1988	BOAC adopted policy raising altitudes from 1500 feet to 2000 feet on existing helicopter routes in the LAX area (Resolution No. 16306, rescinds Resolution No. 14647 and 14954).
September 1988	El Segundo requested FAA Administrator to change procedures so that aircraft would not turn until one mile west of LAX VORTAC. FAA agrees to study the request.
November 9, 1988	BOAC authorized staff to negotiate and execute a new Memorandum of Agreement with the FAA to obtain copies of air traffic control information recorded by the Ontario and Los Angeles TRACON computer systems (Resolution No. 16443). This ARTS (radar) information retrieval capability was to be added to the existing Aircraft Noise Monitoring System to, among other things, improve the ability to use computer models to describe airport noise and to track early turns at LAX.

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November 9, 1988	\$1 million provided by LADOA to Inglewood to supplement funds received as part of the Part 150 noise compatibility program. Funds will be used to purchase noise impacted residential property and recycle it to compatible uses. (Resolution 16442)
February 21, 1989	California Department of Transportation approved and filed variance from State Noise Standards for Van Nuys Airport.
March 22, 1989	BOAC authorized staff to execute license agreements for placement of noise monitoring stations on public and private property (Resolution No. 16616).
March 22, 1989	BOAC authorized advertisement for bids to conduct Sound Insulation of Multi-Family Dwellings project. (Resolution 16629)
Spring 1989	FAA modified FLIPR THREE departure instructions to better describe departure turn points for departures off Runways 24, utilizing the LAX VORTAC 310 degree radial instead of the 305 degree radial, thus putting airplane turns slightly farther off-shore for the north runway complex.
April 1989	FAA conducted two-week test of one-mile DME procedures requested by El Segundo in September, 1988. The tests had limited success, and results were reported to the Department. The chief result was that there is insufficient opportunity available for pilots to begin turns after crossing a one-mile DME fix before crossing the two-mile waiver limit. This procedure was not adopted by the FAA.
April 1989	Sound insulation of first 33 multifamily dwelling units in El Segundo was completed and post modification noise measurements were conducted as part of the Final Demonstration Phase (Phase 4).
July 1989	Sound insulation of 15 single family dwelling units in Playa del Rey was completed, and post modification noise measurements are conducted as part of the Final Demonstration Phase (Phase 4). Due to some deficiencies in the results of the noise testing, additional minor modifications were performed on seven of the fifteen dwellings.
September 27, 1989	BOAC directed LADOA staff to prepare Stage 2 aircraft phase-out policies for all three airports (Resolution No. 16854).
October 1989	Noise Management Bureau report recommended the FAA revise the current two-mile waiver for simultaneous departures at LAX to three miles or any greater approved distances, and requests that FAA undertake a re-test of the one-mile DME procedure. FAA agrees to study the request.
November 8, 1989	BOAC authorized Wyle Laboratories to provide construction oversight services for final stage of a residential sound insulation demonstration project involving 18 multiple family units in Lennox. (Resolution 16888)
November 8, 1989	Memorandum of Understanding adopted with Ontario/Montclair School District for development of demonstration noise mitigation program for a public school within the 65 CNEL contour, including appropriation of up to \$2 million. (Resolution 16897)

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December 20, 1989	Authorization to provide up to \$2 million to City of Inglewood for implementation of an approved project pursuant to Part 150 Supplemental Funding Program (Resolution No. 16923).
April 1990	Pursuant to requirement of State noise variance, studies were completed describing jet and helicopter operations and noise at Van Nuys Airport.
May 2, 1990	USAir became the first major airline to fly an all Stage III quiet aircraft fleet out of LAX.
May 9, 1990	BOAC rescinded Resolution 16923 and authorizes payment of \$2 million to Inglewood in advance of receipt of the required avigation or noise easement, but subject to appropriate assurances that such easement will be granted, for implementation of an approved project pursuant to Part 150 Supplemental Funding Policy. (Resolution 17103)
May 9, 1990	Approval of the ONT Part 150 Study and Noise Compatibility Program included a commitment, attempting to match FAA grants up to \$5 million per year, and providing the local share for FAA grants. (Resolution 17102)
May 31, 1990	BOAC authorized circulation of proposed Stage 2 aircraft phase-out regulations for LAX (Resolution No. 17150) and ONT (Resolution No. 17152). BOAC also adopts moratorium on new Stage 2 operations for LAX (Resolution No. 17151) and ONT (Resolution No. 17153).
June 13, 1990	BOAC authorized circulation of proposed Stage 2 aircraft phase-out regulation for VNY (Resolution No. 17154).
July 25, 1990	BOAC approved allocation of \$50,000 to the City of El Segundo to fund a study evaluating the benefits of sound barriers adjacent to residential neighborhoods south of Imperial Highway. (Resolution No. 17210).
September 5, 1990	BOAC approved allocation of \$607,500 as 20% matching funds for a Federal grant to the Ontario/Montclair School District for sound insulation of 3 schools. (Resolution 17277)
October 1990	Sound insulation of 18 dwelling units in Lennox was completed, and post modification noise measurements are conducted as part of the Final Demonstration Phase (Phase 4).
October 29, 1990	BOAC provided \$4 million to Inglewood (\$2 million for FY 90 and \$2 million for FY 91) for the implementation of a Part 150 approved project pursuant to the LADOA Part 150 Supplemental Funding Policy. (Resolution 17322)
November 21, 1990	BOAC extended LAX and ONT Stage 2 moratoriums originally adopted May 31, 1990 (Resolution No. 17363 and 17364).
March 20, 1991	BOAC initiated process for establishment of noise abatement departure procedures at VNY (Resolution No. 17499).
May 15, 1991	BOAC adopted LAX and ONT Noise Regulation to phase-out Stage 2 aircraft (Resolution No. 17601 and 17603).

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
June 1991	Tracor Applied Sciences completed installation of the upgraded noise monitoring system at LAX, VNY, and ONT. The new system, the Aircraft and Noise Monitoring and Management System (ANMMS), includes ARTS (radar) capability to track airplane movements at LAX and ONT. The radar flight-tracking information is to be sent to Noise Management Bureau from FAA on a mandatory two-week delay.
June 1991	Department's Noise Management Bureau staff met with FAA, ATA, and EI Segundo regarding early turn responsibilities; FAA issues a negotiated letter outlining agreed-upon actions for reduction of jet "early turns" at LAX, including revisions to FAA departure instructions, Department monitoring and distributing radar information on aircraft overflying communities and other actions. (FAA letter dated June 19, 1991)
June 26, 1991	BOAC approved allocation of \$2 million to the City of Los Angeles and \$1 million to Inglewood for noise mitigation under Part 150 Supplemental Funding Policy. (Resolutions 17657 and 17658)
June 26, 1991	LAX Supplemental Funding Policy amended to increase potential grant amount per jurisdiction and allow LADOA grant to be used as local share of matching FAA grant. (Resolution 17656)
June 30, 1991	LADOA accepted new noise monitoring system installed by Tracor Applied Sciences.
July 26, 1991	Meeting held by L. A. County to discuss the Lennox Sound Attenuation Program. Topics on the agenda included FAA Grant Application, DOA Grant Application, DRP Revitalization Plan, and the CDC Proposed Program.
July 31, 1991	L. A. County officially requested LADOA to reserve \$2 million for FY92 to match the potential \$2 million FAA grant they were applying for to implement an acquisition and sound insulation program.
November 1, 1991	L. A. County (Carlos Jackson) submitted a Pre-Application to the FAA for funds to conduct an acquisition and sound insulation program.
November 1991	Van Nuys helicopter operational analysis completed by Communiquet and released to the public.
November 4, 1991	LADOA sponsored its first Residential Sound Insulation and Land Acquisition Program seminar for local government agencies.
December 4, 1991	BOAC authorized payment to L. A. City of funds, previously authorized by Resolution 17657, in advance of receipt of an FAA grant, since that grant was withheld in reaction to BOAC adoption of Resolution 17601 phasing out Stage 2 aircraft at LAX. (Resolution
December 4, 1991	BOAC approved allocation of \$2 million to City of Ontario, and \$2 million to Inglewood to help purchase noise-impacted residential property and recycle it to compatible uses. Payment to Ontario was authorized in advance of receipt of its FAA grant, since that grant was withheld in reaction to BOAC adoption of Resolution 17603 phasing out Stage 2 aircraft at ONT. (Resolutions 17872 & 17874)

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
January 15, 1992	Noise Management Bureau applied to the California Department of Transportation for a three-year variance from State Noise Standards for VNY. This, in effect, continues the previous variance until the new variance is issued.
January 29, 1992	L. A. County (Carlos Jackson) submitted an Application to the FAA requesting \$45,962,533 in federal funding to implement a sound attenuation and voluntary acquisition program under the FAR Part 150 Noise Compatibility Program.
April 1992	All twenty-five VNY-based jet operators executed agreement to use published quiet flying procedures.
April 14, 1992	VNY airport management submitted letter to FAA Regional Flight Standards Office to request consideration of feasibility of revising the IFR departure procedure on the SID from 1.5 DME to 2.2 DME.
May 27, 1992	LAX Supplemental Funding Policy amended (1) to allow jurisdictions to submit certificates of land use compatibility in lieu of limited aviation easements for residential sound insulation projects and (2) to incorporate location priorities for projects. (Resolution 18062)
June 22, 1992	BOAC approved allocation of \$408,880 to the City of El Segundo and \$1 million to the County of Los Angeles for noise mitigation under Part 150 Supplemental Funding Policy. Payment to the County was authorized in advance of receipt of its FAA grant, since that grant was withheld in reaction to BOAC adoption of Resolution 17601 phasing out Stage 2 aircraft at LAX. (Resolutions 18086 and 18087)
June 22, 1992	BOAC re-authorized the release of \$2 million to the City of Los Angeles, \$2 million to the City of Ontario, and \$1 million to Inglewood subject to the provisions of Resolution 18062. (Resolutions 18083 to 18085)
July 1992	Ninety-two itinerant jet operators that use Van Nuys Airport executed agreement to use published quiet flying procedures.
July 14, 1992	Inglewood executed a Letter Agreement to receive \$1 million for a pilot residential sound insulation project as authorized under Resolution 18085.
August 12, 1992	Inglewood received check for \$1 million as authorized under Resolution 18085.
September 1992	Noise Management Bureau improved early turn radar tracking techniques and commences monthly distribution of LAX community overflight ("early turn") information, as reported by the LAWA noise monitoring system and FAA ARTS computers, to FAA, airlines, El Segundo, and Council District 6 in accordance with June 1991 agreement. Reported information includes all westerly departing aircraft turning over communities to the north and south of LAX.
September 2, 1992	Noise Management Bureau staff secured an amendment to the Memorandum of Agreement for FAA ARTS data, shortening the FAA's formal data retention period from 2 weeks to 7 days.
September 8, 1992	Inglewood executed a Letter Agreement to receive \$2 million for a property acquisition project as authorized under Resolution 17874.

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
September 21, 1992	BOAC approved allocation of \$287,703 as 20% matching funds for a Federal grant to the Ontario/Montclair School District for sound insulation of one school. (Resolution 18183)
September 29, 1992	L. A. County received and accepted a \$1 million grant offer from the FAA (AIP Proj. No. 3-06-0139-NA) for residential sound insulation.
October 5, 1992	BOAC approved VNY Part 150 Noise Compatibility Program. (Resolution 18204)
October 5, 1992	BOAC adopted VNY Noise Regulation, which was in turn sent to the City Council for adoption as an Ordinance (Resolution No. 18202).
October 5, 1992	BOAC authorized solicitation of proposals for the expansion of the noise monitoring system at VNY and LAX (Resolution No. 18205). This upgrade includes an improved automated capability to analyze and report on all in-flight operations, including LAX early turns.
November 2, 1992	LADOA sponsored its second Residential Sound Insulation and Land Acquisition Program seminar for local government agencies.
December 21, 1992	BOAC adopts amended LAX and ONT Noise Regulations to phase-out Stage 2 aircraft (Resolution No. 18298 and 18299).
January 13, 1993	California Department of Transportation granted variance from State Noise Standards for LAX.
January 22, 1993	L. A. County requested an advance (\$50,000) of approved LADOA funds (under Resolution No. 18087) to secure an acoustical consultant and to compensate the CDC for staff time and expenses incurred for the development of the Sound Attenuation Program.
February-May 1993	Noise Management Bureau reconvened the NACC, adding El Segundo representatives, to meet monthly to discuss various noise issues, including LAX "early turns", to validate use of ARTS data, and to ascertain potential causes for overflights in light of FAA departure instruction modifications. The accuracy of ARTS data for tracking "early turns" is substantiated.
February 5, 1993	L. A. County requested LADOA to match the \$1 million FAA grant for FY93.
February 22, 1993	BOAC approved contract with Bruel & Kjaer (\$247,351) for acquisition and installation of PASSUR (Passive Secondary Surveillance Radar) Unit for acquisition of VNY flight tracks in partial implementation of Resolution No. 18205. (Resolution No. 18386).
February 22, 1993	BOAC approved plans and authority to advertise for bids for \$1.6 million Westchester Sound Barrier (Resolution No. 18374).
March 12, 1993	BOAC approved contract with Dimensions International (\$570,606) for installation of an ARTS data Collection and Editing System ("Direct Connect"), enhancing the ability to receive FAA ARTS data for LAX, ONT, and VNY. (Resolution No. 18408).

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
March 12, 1993	LADOA requested all LAX jurisdictions to prepare an ANMP, as required under the 1993 LAX Variance Decision issued by Caltrans, and forwards a copy of the Guidelines for Preparation of the Aircraft Noise Mitigation Program (ANMP) Plan. The letter specifically requests the ANMP Summary to be submitted by July 1, 1993, in order to prepare the LAX Composite ANMP as required by the LAX Variance.
March 23, 1993	LADOA delivered a check (warrant no. HO300704) to L. A. County for \$250,000 as an advance of the \$1 million previously approved for noise mitigation.
March 23, 1993	L. A. County requested an advance of \$250,000 (25% of the FY92 allocation) to secure an acoustical consultant and to compensate CDC for staff time and expenses in preparing the ANMP.
June 1993	City Council passed and Mayor signed Stage 2 Airplane Phaseout Regulation Ordinances for LAX and ONT.
June 14, 1993	BOAC approved amendment to Resolution 18086, waiving the easement requirement for the single family home purchased by the City of El Segundo for a sound insulation demonstration project. (Resolution No. 18409)
June 27, 1993	A technical coordination meeting was held to discuss, coordinate and resolve ANMP computer issues relating to the mapping involved in the preparing the ANMP. Attendees included staff from LADOA and Psomas.
June 28, 1993	BOAC approved allocation of \$1.33 million to the City of Los Angeles, \$4 million to the City of Ontario, \$1.33 million to Inglewood, \$1.33 million to the City of El Segundo, and \$1 million to the County of Los Angeles for noise mitigation under Part 150 Supplemental Funding Policy. (Resolutions 18503 to 18508)
July 1, 1993	Passenger Facility Charge (PFC), approved by FAA in April 1993, became effective at LAX and ONT. Arriving and departing passengers were charged \$3 each over 5 years, with funds to be used for airport-related improvements. \$100 million of collected funds were to be used for noise mitigation.
July 19, 1993	LADOA requested L. A. County to provide a status report summarizing the County's progress developing zoning and building code requirements to ensure the sound insulation of new or modified residences (noise insulation ordinance).
July 29, 1993	L. A. County requested a 120 day extension of the July 1, 1993 deadline to submit the ANMP Summary. They also state that very limited steps had been taken to address developing a noise insulation ordinance for new construction, and that they would prepare a plan to address the issue and submit it within the next 30 days.
August 2, 1993	Stage 2 Airplane Phaseout Regulations became effective as ordinance at LAX and ONT.
September 28, 1993	At the request of the State Department, BOAC approved request for Stage 2 variance made by Aeroflot, for a two-year period to commence October 1, 1993. (Resolution No. 18580)

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
September 28, 1993	BOAC approved contracts with The Flood Group (DA-2887 for \$850,000), Infosystems (DA-2888 for \$608,674.35), Tracor Applied Sciences (DA-2889 for \$140,807.25), and Wyle Laboratories (DA-2890 for \$210,000) for upgrade and maintenance of the Aircraft and Noise Monitoring and Management Systems at LAX, Van Nuys, and Ontario airports. (Resolutions No. 18575, 18576, 18577, and 18578).
October 1993	Department held first quarterly status meeting and prepares initial 3Q93 Quarterly Status Report for LAX Noise Variance intervenors, as required by the variance decision. Meetings and status reports continue quarterly thereafter through 1Q95.
November 9, 1993	BOAC reaffirmed approval of the VNY Part 150 program, approves extension of the 74 dBA curfew by one hour, and rescinds approved amendments to the VNY noise ordinance approved in Resolution No. 18202. (Resolutions No. 18608 and 18609)
December 1993	Department staff and contractors completed installation of PASSUR unit for VNY.
February 1994	Department staff and contractors completed installation of advanced noise monitoring workstation and software at VNY.
February 14, 1994	L. A. County forwarded letter to LADOA stating their concerns regarding the proposed amendment to Resolution No. 18062 to allow band prioritization. They preferred using city blocks and requested that both options (block and band prioritization) be allowed.
March 1994	Dimensions International completed installation of direct connect ARTS III Collection and Editing System (ACES) at Southern California Tracon. This allows FAA radar flight track data to be supplied to the department directly via modem. The information is held by FAA for seven days before it is sent to the Noise Management Bureau.
March 30, 1994	L. A. County awarded contract to Wyle to provide various administrative and engineering tasks.
May 17, 1994	City of Ontario adopted Ordinance 2569, which requires all residential structures that are newly constructed and/or existing residential structures that are modified or expanded to be sound insulated.
June 7, 1994	City of El Segundo adopted Ordinance 1224, which requires that all newly constructed residential structures and/or most existing residential structures that are modified or expanded have to be sound insulated. (Ordinance later rescinded)
June 20, 1994	BOAC approved first amendment to Contract DA-2889 with Tracor Applied Sciences for maintenance of noise monitoring system components. (Resolution No. 18836)
June 27, 1994	L. A. County received and accepted an FAA grant offer (AIP Project No. 3-06-0139-NF) for \$1 million.
June 28, 1994	LADOA forwarded request issued by BOAC to determine each jurisdiction's eligibility with FAA and LADOA.

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
July 1994	The Flood Group delivered phase 2 of the ANMMS system upgrade, introducing the ability to view and plot flight tracks derived from FAA radar data at LAX. System testing began. An amendment to the FAA Grant Agreement for AIP Project No. 3-06-0139-10 increased funding for the ANMMS.
July 6, 1994	L. A. County responded to LADOA's questions regarding funding eligibility as follows: (1) Two FAA grants have been accepted by County for a total of \$2 million. (2) Approximately 15% of funds are authorized for administration expenses including cost for grant implementation. (3) A demonstration house was acquired in the 75 CNEL zone and sound insulation is expected to begin July 1994. (4) Wyle was retained in March 1994 for architectural and engineering services, as well as preparing the ANMP. (5) County staff is working with Regional Planning to prepare new construction noise insulation ordinance, which is expected to be completed and adopted by the Board of Supervisors by November 1994. (6) County does not have any other funds available for matching FAA grants. Existing rehabilitation programs funded by the CDBG and HOME will be utilized to assist homeowners with Code and Health and Safety related repairs. (7) Upon approval of the ANMP and adoption of the Noise Ordinance, staff will fully implement the sound insulation construction phase of the program.
August 5, 1994	BOAC denied request for Stage 2 variance made by Corse-Air to conduct Stage 2 aircraft operations at LAX. (Resolution No. 18884)
November 15, 1994	BOAC provided \$287,443 to the Ontario-Montclair School District for the implementation of an eligible Part 150 project involving noise mitigation for Bon View School.
December 1994	LADOA received draft noise ordinance for Lennox Community Standards District.
December 22, 1994	LADOA met with L. A. County staff from the CDC and Regional Planning, and Wyle to discuss the noise ordinance, the flexibility of the SFP, the required documentation, ANMP, accuracy and collection of data, budget, availability of SFP funds, and the contour maps.
January 1995	LADOA reviewed draft L. A. County noise ordinance.
UNKNOWN	PFC Collection for noise mitigation programs was suspended.
January 4, 1995	BOAC denied request for Stage 2 variance made by Aeromexpress to conduct 192 annual Stage 2 aircraft operations at LAX. (Resolution No. 19013)
January 24, 1995	LADOA forwarded a copy of the most current land use and parcel data base coverage for areas surrounding LAX to Psomas.
February 21, 1995	LADOA forwarded informal comments on L. A. County noise ordinance, via fax, to Sorin Alexanian.
March 17, 1995	Inglewood completed a pilot Residential Sound Insulation Project involving 38 dwellings at a construction cost of \$1,079,750 (including \$1 million LADOA funds granted under Resolution 18085).

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
April 1995	The Noise Management Bureau's LAX Early Turn Notification Program began using the upgraded early turn tracking system exclusively, due to its greater accuracy and its graphic capabilities for reviewing and plotting flight tracks.
April 1995	City of Ontario completed their Phase 1 residential sound insulation project, which included 79 single family dwelling units at a total cost of \$1,699,750.
April 24, 1995	LADOA approved the City of Ontario's Aircraft Noise Mitigation Plan (ANMP), Sound Insulation Grant Implementation Plan (GIP), and Property Acquisition GIP submitted in accordance with Resolution 18062.
May 8, 1995	LADOA forwarded formal L. A. County noise ordinance comments and recommendations, and referred to sixteen specific issues that were of concern to LADOA.
May 22, 1995	L. A. County staff met with FAA representative to discuss a Tentative Allocation (TA) of \$1 million to the County for FY95 under AIP Project No. 3-06-0139-NH.
June 12, 1995	FAA forwarded a letter to L. A. County to acknowledge issues discussed in the May 22, 1995 meeting and to relate their concern over the delay of the sound insulation project. FAA stated that "It was mutually agreed upon that a Grant Offer from the FAA to the County of Los Angeles Community Development Commission (CDC) would occur subject to satisfactory resolution of differences regarding noise ordinance issues with the Los Angeles Department of Airports (LADOA). We understand that the adoption of the noise ordinance by the County of Los Angeles is anticipated to occur by September 2, 1995. Further, the CDC is not prepared to use its own funds for the local grant match and would be using funds from the LADOA."
June 21, 1995	BOAC approved first amendment to Contract DA-2890 with Wyle Laboratories for technical support services related to the ANMMS upgrade and work related LAX Variance. Wyle is to prepare the LAX composite Aircraft Noise Mitigation Plan (ANMP) required under the LAX Noise Variance. (Resolution No. 19206)
June 21, 1995	BOAC approved second amendment to Contract DA-2889 with Tracor Applied Sciences for maintenance of noise monitoring system components. (Resolution No. 19207)
June 29, 1995	LADOA forwarded a check for \$287,443 to the Ontario-Montclair School District for the relocation of Bon View School to a sound insulated facility outside the current 65 dB CNEL noise impact area.
July 1, 1995	Department established LAX Airport Noise Complaint Response Office (ANCRO) under the Airport Manager's supervision. ANCRO, which is staffed with Airfield Operation personnel, consolidates 24-hour complaint response in one office.
July 10, 1995	Bon View School was officially re-opened at its new sound insulated location outside the current 65 dB CNEL noise impact area.
July 25, 1995	BOAC received staff report on helicopter operations at VNY and approves recommendations for mitigating helicopter noise impacts. (Resolution No. 19247)

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
July 25, 1995	BOAC instructed management to draft a modification to the VNY noise ordinance to extend curfew by one hour and to prohibit new entrant Stage 2 aircraft. (Resolution No. 19248)
August 8, 1995	LADOA and L. A. County staff met to discuss progress on the County's land use mitigation program and to determine when LADOA would provide the approved supplemental matching funds. County staff verbally agree to provide LADOA with limited easements for sound insulated properties in order to expedite the process.
August 24, 1995	California Department of Transportation granted variance from State Noise Standards for ONT.
August 24, 1995	L. A. County submitted first ANMP and GIP to LADOA.
August 30, 1995	LADOA transmitted a revised "Proposed Code Amendment for Sound Insulation of Noise-Sensitive Structures in the Vicinity of Los Angeles Airports" to assist L. A. County in preparing its noise ordinance.
September 8, 1995	FAA forwarded a letter to the L. A. County withdrawing the TA of \$1 million (AIP Project No. 3-06-0139-NH) due to their "concern with the delay in project implementation and non-resolution of noise ordinance issues.
September 27, 1995	Per the County's request, LADOA forwarded a letter to Carlos Jackson stating LADOA's commitment to make funds available once the L. A. County has complied with the specified requirements and has agreed to provide LADOA with limited easements for sound insulated properties. The County needed this commitment to provide assurance to the FAA that the County would be moving forward with their project. (Draft originally sent to PD on August 10, 1997 for his approval)
October 24, 1995	Developed in compliance with the 1993 LAX Noise Variance, BOAC received several noise abatement subject reports and adopts related recommendations (Resolution No. 19330). The following reports were produced by the Noise Management Bureau, except for the 'Super Tug' report which was produced by the Airport Manager: "Review of Policies Pertaining to Aircraft Maintenance and Ground Activities at Los Angeles International Airport", "Early Turn' Policy and Procedures Evaluation Report", "Helicopter Noise Abatement Policy Evaluation Report", "Sound Barrier Policy and Procedures Evaluation Report", "'Super Tug' Policy Evaluation Report", and "Preliminary Evaluation of the Potential Application of Run-up Noise Reduction Systems"
November 21, 1995	BOAC rescinded previous Part 150 NCP Supplemental Funding Policy Resolution 18062 (Resolution 19356), and approves a new policy to supplement Federal Part 150 Noise Compatibility Program (NCP) grants to achieve land use compatibility at airports owned by the City of Los Angeles, which reinstates mandatory easements. (Resolution 19357)

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
December 5, 1995	City of Ontario executed a Letter Agreement for a sound insulation project in order to receive the remaining funds (\$1,500,000) authorized under Resolution 18505. A second Letter Agreement is also executed for a property acquisition project to receive the remaining \$3,222,310 authorized under Resolutions 18084 and 18506.
December 11, 1995	LADOA and Council Member Ruth Galanter co-sponsored a Residential Sound Insulation (RSI) Program kickoff meeting, introducing the program to the community of Westchester.
December 13, 1995	Department applied to the California Department of Transportation for a three-year variance from State Noise Standards for LAX, and submits "Proposed LAX Noise Variance Conditions" for the new variance.
December 19, 1995	BOAC denied request for Stage 2 variance made by Great American Airways to conduct Stage 2 aircraft operations at LAX. (Resolution 19376)
December 19, 1995	BOAC denied request for Stage 2 variance made by Aeroflot to continue conducting Stage 2 aircraft operations at LAX previously approved under Resolution 18580. (Resolution 19377)
December 27, 1995	LADOA forwarded a copy of the new "limited" easement, via fax, to the L. A. County (approved version prepared by City Attorney's Office).
January 1996	Noise Management Bureau staff delivered a check for \$1.5 million to the City of Ontario, completing funds distribution for their first \$2 million sound insulation grant.
January 1996	Noise Management Bureau staff organized meeting with FAA, affected commuter airlines, and an El Segundo representative to discuss the Bureau's recommended SID amendments to reduce turboprop early turns at LAX. FAA agrees to study and implement the recommendations if no problems are encountered.
January 1996	Department held three LAX Master Plan Community Workshops soliciting public input in Westchester, El Segundo, and Inglewood.
January 8, 1996	LADOA forwarded formal written comments on ANMP and GIP to L. A. County. In addition to the many items that need to be corrected and/or clarified, there were two major changes that needed to be made to the ANMP as follows: (1) all eligible unincorporated L. A. County territory must be included (Athens and Del Aire), and (2) the boundaries of the eligible area has to be expanded to encompass LADOA's official 4Q92 Quarterly Report noise impact area. Wyle indicated that this could be done in about a month, if authorized by County. The ANMP also contained an acquisition policy that was unclear and ineligible for LADOA funding.
January 16, 1996	LADOA forwarded a Letter Agreement to the L. A. County for their execution to receive the remaining funds (\$1,750,000), and also a copy of the required avigation easement. (Letter Agreement not executed by L. A. County)
January 30, 1996	Inglewood executed a Letter Agreement to receive \$1,333,333.33 for a property acquisition project, as authorized under Resolution 18508.

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
February 1996	Noise Management Bureau submitted a request that FAA assign a single, unique transponder code to all helicopter operations in the vicinity of LADOA airports, to aid in flight tracking and monitoring.
February 6, 1996	In a meeting with FAA, Noise Management Bureau worked out the final details of a procedural change for turboprop departures at LAX that will reduce "early turns" of that type of aircraft over El Segundo.
February 7, 1996	Noise Management Bureau staff approved a payment of \$1.33 million to City of Inglewood in support of their noise mitigation programs.
February 20, 1996	ANMMS software version 4.3 was installed.
February 27, 1996	BOAC approved second amendment to contract DA-2890 with Wyle Laboratories, for preparation of an LAX composite ANMP, as required by 1993 LAX Noise Variance. (Resolution No. 19419)
March 27, 1996	Noise Management Bureau's Van Nuys Branch office was established.
April 1996	Noise Management Bureau sent a letter to the City of Ontario which described limits on property acquisition and the new projected noise contours for 2000.
April 2, 1996	BOAC approved allocation of \$2 million to Inglewood for the implementation of an eligible Part 150 Property Acquisition Project pursuant to the DOA's FAR Part 150 NCP Supplemental Funding Policy (1993-1994). (Resolution 19458)
April 2, 1996	Inglewood adopted Ordinance No. 96-06, which requires all residential structures that are newly constructed or existing residential structures that are modified or expanded to be sound insulated.
April 2, 1996	BOAC approved allocation of \$2 million to Inglewood for the implementation of an eligible Part 150 Property Acquisition Project pursuant to the DOA's FAR Part 150 NCP Supplemental Funding Policy (1994-1995). (Resolution 19459)
April 2, 1996	BOAC approved allocation of \$2 million to Inglewood for the implementation of an eligible Part 150 Sound Insulation Project pursuant to the DOA's FAR Part 150 NCP Supplemental Funding Policy. (Resolution 19457)
April 11, 1996	L. A. County forwarded, via fax, a copy of the Letter Agreement showing the changes the County would like to make.
April 16, 1996	L. A. County forwarded a request to LADOA for additional implementation funds (\$367,445) to resolve the \$140,209 deficit and to continue with for the RSIP.
May 1996	The City Attorney denied two requests by new-entrant air carriers to conduct Stage 2 operations.
May 2, 1996	LADOA forwarded a letter to the L. A. County expressing our hope that they will actively participate in the program before the end of FY96. It also recapped the various correspondences and actions taken between the LADOA and the County, and stated that the LADOA is awaiting the re-submittal of the ANMP and GIP for review and approval. It acknowledges that the County will need another month to complete the ANMP and GIP, and that the LADOA is revising the Letter Agreement per County's comments.

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
May 8, 1996	L. A. County forwarded an "Outlay Report and Request for Reimbursement" to show a detailed breakdown of the additional funds (\$367,445) requested in April 1996.
May 13, 1996	L. A. County Regional Planning forwarded a draft copy of the noise ordinance (entitled Noise Insulation Program) for the County, via fax. [Note: The part of the LACO noise ordinance prepared by the LACO Planning Department only involved proposed adoption of the noise contour map within which subsequent Building Code sound insulation provisions would be applied. LADOA did not receive a copy of the actual sound insulation requirements and standards that the LACO Building Department proposed to use.]
May 15, 1996	LADOA forwarded a revised Letter Agreement to L. A. County for their execution to receive the remaining \$1,750,000. It also advised them that non-construction type costs should not exceed 20%, and if they need to, then they have to get specific written authorization from the LADOA. (Letter Agreement not executed by County)
May 21, 1996	City of Ontario adopted Ordinance No. 2616, which is a new sound insulation ordinance that repeals the previous Ordinance No. 2569. The new ordinance is a clarified version of the previous one, and it also better addresses the requirements for expansions of existing residential structures.
May 21, 1996	BOAC approved modification of VNY noise ordinance extended curfew by one hour, to begin at 10 p.m. rather than 11 p.m. (Resolution No. 19529)
May 28, 1996	L. A. County forwarded a justification for additional funds and essentially requests that the County be allowed to exceed the 20% limit on non-construction type costs for the project.
June 1996	Noise Management Bureau sent a letter to the City of Inglewood confirming a commitment to fund property acquisition in the La Cienega Noise Abatement Area.
June 1996	Noise Management Bureau sent a letter to the City of Ontario regarding land acquisition and sound insulation in their Action Area IV.
June 1996	Noise Management Bureau published updated Airline Quarterly Report forms that provide better information in a simpler format.
June 3, 1996	LADOA attended L. A. County Noise Ordinance Status meeting along with staff from CDC, Regional Planning, Building & Safety, and Wyle.
June 13, 1996	LADOA forwarded comments and concerns to L. A. County regarding the adequacy of the draft "Noise Insulation Program" that is supposed to satisfy the noise ordinance requirement. LADOA requests a description and explanation of the development, adoption, and implementation of the proposed regulation for the County. [Note: no building code requirements were provided to LADOA.]
June 18, 1996	BOAC approved three-year agreement with Tracor Applied Sciences for maintenance of noise monitoring system components. (Resolution No. 19568)

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
June 18, 1996	BOAC approved second amendment to contract DA-2887 with The Flood Group, for upgrade of ANMMS core software and selected hardware. (Resolution No. 19569)
June 20, 1996	FAA implemented "Seal Beach 3" Standard Instrument Departure (SID), which uses the SMO 154 Radial to prevent turboprop early turns over El Segundo. This SID was developed in conjunction with and at the request of the Department.
June 26, 1996	LADOA forwarded a letter to L. A. County authorizing them to exceed the 20% limit on expenditures for non-construction type costs, and sets a new limit of 45%. The County was informed that any subsequent request to exceed the 45% limit would need approval of the BOAC.
July 11, 1996	Regional Planning responded to LADOA's request for a description and explanation of the development, adoption, and implementation of the proposed regulation for L. A. County. [Note: The response did not include LACO's Building Code requirements.]
July 16, 1996	A revised Letter Agreement for L. A. County was reviewed and approved by the City Attorney's Office. (Submitted for review on June 25, 1996)
July 18, 1996	LADOA transmitted a revised Letter Agreement to L. A. County for execution. The agreement includes a new 45% limit on expenditures for non-construction type costs. (Letter Agreement not executed by County)
August 1996	Noise Management Bureau sent three Letter Agreements to the City of Inglewood for their execution. Upon approval, this would allow \$9 million to be released for Inglewood's noise mitigation program.
August 1996	Noise Management Bureau relocated to new offices at 7401 World Way West. Turmoil surrounding the move led to intermittent delays in other activities.
September 1996	Noise Management Bureau sent a memo to management requesting City Attorney action to enforce the Stage 2 Phaseout Regulation, and sent a letter to TWA notifying them of Exhibit B Regulation violations.
October 1996	Noise Management Bureau produced reports and participated in meetings regarding UAL's continued violation of Exhibit B limits of the Stage 2 Phaseout Regulation.
October 1996	Noise Management Bureau commenced sending "no early turn" letters to pilots at Van Nuys that turn prior to the Sepulveda Flood Basin.
October 1996	Delivery of ANMMS software version 4.5 was completed.
October 9, 1996	L. A. County requested a copy of the most recent Letter Agreement to be printed on County (CDC) letterhead.
October 15, 1996	Noise Management Bureau resubmitted to L. A. County a proposed ordinance requiring the sound insulation of new and expanded structure in the City of Los Angeles.

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
October 15, 1996	LADOA forwarded the July 18th Letter Agreement printed on L. A. County letterhead as requested.
October 23, 1996	A pre-hearing conference was held for the upcoming State Noise Variance hearing for LAX.
November 1996	Noise Management Bureau staff secured an amendment to the Memorandum of Agreement for FAA ARTS data, shortening the FAA's formal minimum data retention period from 1 week to 3 days.
November 5, 1996	BOAC approves ANMMS maintenance service agreement with The Flood Group for \$93,000. This is the final contract for maintenance of the ANMMS core software. Upon expiration in October, 1997, maintenance will be done in-house. (Resolution No 19680)
November 18, 1996	County of Los Angeles executed a Letter Agreement to receive the remaining \$1.75 million authorized under Resolutions 18087 and 18504, for a residential sound insulation project.
November 19, 1996	Inglewood executed three Letter Agreements to receive a total of \$9 million as authorized under Resolutions 19457, 19458, and 19459.
November 22, 1996	NMB requested preparation of check for \$1,750,000 for L. A. County.
December 6, 1996	Noise Management Bureau presented a check for \$9 million, authorized under Resolutions 19457, 19458, and 19459, to Inglewood.
December 31, 1996	As of this date, the following numbers of dwelling units have been sound insulated by the agency indicated: LADOA - 106 units, City of Inglewood - 38 units, City of Ontario - 79 units, Total to date - 223 units.
January 14, 1997	BOAC approved settlement of lawsuit with the City of El Segundo regarding noise mitigation funds. (Resolution No. 19747)
January 16, 1997	Noise Management Bureau presented a check for \$1.75 million, authorized under Resolutions 18087 and 18504, to the County of Los Angeles.
January 1997	Noise Management Bureau staffed the noise issue desk at four public workshops regarding the LAX Master Plan.
March 18, 1997	BOAC authorized staff to transmit proposed changes to VNY noise ordinance to FAA for review and approval. (Resolution No. 19784)
March 24, 1997	Noise Management Bureau published the Aircraft Noise Mitigation Program for LAX, in compliance with a condition of the previous State noise variance.
March 25, 1997	L. A. County submitted revised ANMP and GIP to LADOA for review and approval.
March 26, 1997	Noise Management Bureau published a report on LAX Early Turns for the BOAC. The report briefly describes past efforts to reduce early turns and illustrates an overall reduction of early turn rates by 76% at El Segundo, 62% at Hyperion, and 22% at Playa del Rey from the late 1980's until 1996-97.

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
March 27, 1997	Noise Management Bureau sent a letter to FAA requesting a modification in the departure procedure for VNY to reduce aircraft turns over the community, and making suggestions for future transponder allocation plans.
April 1997	Noise Management Bureau staff attended a meeting of the 83rd Street Block Club in Inglewood with LAX Master Plan staff and Mayor Dorn. Staff made a presentation and answered questions about noise levels, in-flight procedures, and sound insulation programs.
April 15, 1997	LAWA presented a check for \$1.7 million to the Ontario City Council for a previously approved land use mitigation project.
April 16, 1997	LADOA sent a letter to L. A. County (Taufiq Rushdy) expressing our concern over the delay of the sound insulation program and requesting confirmation of a program status meeting scheduled for April 22, 1997.
May 8, 1997	Noise Management Bureau staff met with staff from L. A. County's Public Works, Regional Planning, Community Development Commission, and the County Council's office to discuss noise ordinance adoption. A May 19, 1997 NMB letter to Sorin Alexanian memorialized the meeting, citing agreement by the County Council representative that adopting the specific requirements as a document referenced in the zoning code would not have the force of law. It asked that the requirements be adopted as part of the Building Code.
May 19, 1997	BOAC approved submittal of new applications to FAA for Passenger Facility Charges. PFC's will provide funds for noise mitigation programs. (Resolution No. 19847)
May 20, 1997	A second pre-hearing conference was held for the upcoming State Noise Variance hearing for LAX.
June 9, 1997	Charles J. Moore, Principal Deputy County Council, Public Works Division, announced (in a letter to the Second Supervisorial District deputy) the commitment of the L. A. County departments of Public Works and Regional Planning to draft code amendments that will ensure County participation the aircraft noise mitigation program.
June 17, 1997	BOAC approved allocation of \$1,500,000 to Ontario for the implementation of an eligible Part 150 sound insulation projects pursuant to the DOA's FAR Part 150 NCP Supplemental Funding Policy. (Resolution No. 19892)
June 17, 1997	BOAC approved allocation of \$9,237,702 to Inglewood for the implementation of an eligible Part 150 noise mitigation projects pursuant to the DOA's FAR Part 150 NCP Supplemental Funding Policy. \$3,079,234 will be used for sound insulation, and \$6,158,468 will be used for property acquisition. (Resolution No. 19891)
June 30, 1997	LAX Noise Variance hearing commenced, and continued until July 7.
July 21, 1997	Noise Management Bureau notifies jurisdictions participating in the Land Use Mitigation Program of a new federal policy (effective January 1, 1998) stating that incompatible properties developed after that date will not be eligible for Part 150 noise mitigation funds.

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
July 1997	Revised LAX "early turn" data collection procedure to improve accuracy. by eliminating false early turns caused by radar reflection.
August 1, 1997	Noise Management Bureau provided Sorin Alexanian of the L. A. County Regional Planning Department formal comments on the draft ordinance provided at the May 8, 1997 meeting. The comments requested several changes for clarity, acoustic acceptability, and compliance with LAWA policy.
September 23, 1997	Noise Management Bureau requested from FAA an explanation of conditions that may lead to "early turns" over El Segundo. The FAA responded on 10/1/97, stating continued support for LAWA policies against early turns, except where contrary action is required for safety.
October 1, 1997	Noise Management Bureau gave a tour of its facilities and a briefing on noise monitoring practices to two Inglewood City Council members.
October 1, 1997	Responsibility for maintenance of ANMMS core software reverted to Noise Management Bureau upon expiration of contract with The Flood Group.
October 2, 1997	Noise Management Bureau sent a letter to United Airlines indicating that dual-certified aircraft would be considered Stage 2 for compliance with Ordinance 168,852.
October 21, 1997	BOAC approved amendment to the Part 150 Supplemental Funding Program to allow jurisdictions the ability to distribute a limited portion of their insulation funds to areas that are not the most-impacted by noise. (Resolution No. 20007)
October 30, 1997	Noise Management Bureau hosted the California Airport Noise Control Officers' Forum at LAX.
January 1998	Noise Management Bureau reached agreement with Inglewood on procedures for allowing reimbursement of homeowners that insulate their entire home at their own expense when expanding the structure.
January 1998	Updated LAX "early turn" monthly data compilation procedure, using data collection procedure established in July 1997. This improved data accuracy by eliminating false early turns caused by radar reflection.
January 1998	Noise Management Bureau staff completed 2 1/2-year backlog of Quarterly Noise Monitoring Reports for LAX, ONT, and VNY. Productions of these reports was not possible since 1994 due to problems associated with the upgrade of the ANMMS.
January 27, 1998	Los Angeles County Board of Supervisors adopts a Zoning Ordinance revision partially fulfilling the noise ordinance requirements by establishing, by ordinance, the LACO noise impact area that will be subject to Building Code sound insulation requirements. Required changes to the Building Code are still lacking.
February 1, 1998	Collection of PFCs for noise mitigation programs resumed.
February 1998	Noise Management Bureau begins participation in FAA Southern California Task Force, a group organized to investigate noise mitigation through airspace modifications and in-flight procedures.

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
February 2, 1998	Judge Paul M. Hogan issues his proposed decision on the LAX variance (received by LAWA on March 11). The decision is generally unsatisfactory, basing a determination of LAWA's lack of good faith on several "findings of fact" that are inaccurate and contrary to the testimony and evidence presented at the variance hearing.
April 7, 1998	BOAC approved amendment to Resolution 19891 of 6/17/97 (allocating funds to Inglewood for the implementation of eligible Part 150 noise mitigation projects pursuant to the DOA's FAR Part 150 NCP Supplemental Funding Policy) to reallocate funds equally between sound insulation and property acquisition activities in accord with new Inglewood policy.
April 23, 1998	L. A. County submits its initial residential sound insulation specifications for LAWA review. These consist of several hundred pages and include insulation specifications for 9 dwelling units.
April 24, 1998	Ontario submits a revised Grant Implementation Plan for LAWA review. This was discussed at a May 6, 1998 meeting with Ontario staff and responded to formally on July 20, 1998.
May 4, 1998	Noise Management Bureau responds to L. A. County residential sound insulation specifications received April 23, 1998. The County was asked to review the specifications for compliance with eligibility requirements, make any necessary changes, and resubmit revised specifications along with a certification that the specifications meet all LAWA and FAA requirements.
May 12, 1998	Noise Management Bureau sent a letter to John Kelly, L. A. County Superintendent of Building, inquiring about the County's lack of progress in adopting an acceptable noise ordinance.
May, 1998	Noise Management Bureau publishes 1st Quarter, 1998 Quarterly Noise Monitoring Reports within 45 days for LAX, ONT, and VNY. This represents the first time since the major upgrade of the noise monitoring system commenced in 1994 that all such reports were completed on-time.
June, 1998	Noise Management Bureau, in coordination with the FAA Air Traffic Control Tower at LAX, modifies Early Turn notification procedures to incorporate FAA review of early turns via fax. This change was prompted by discussions at the FAA Southern California Task Force
June 4, 1998	FAA modified procedures so as to keep all turboprop aircraft departing LAX in Class B airspace. This ensures that such aircraft will be at least 5000 feet altitude when crossing the Palos Verdes Peninsula. This came about as the result of the Southern California Task Force, a joint effort of the FAA, Los Angeles World Airports, and others.
June 1998	FAA modified procedures so as to keep all turboprop aircraft departing LAX in Class B airspace. This ensures that such aircraft will be at least 5000 feet altitude when crossing the Palos Verdes Peninsula. This came about as the result of the Southern California Task Force, a joint effort of the FAA, Los Angeles World Airports, and others.
June 8, 1998	Inglewood submits 38 Title 21 Compliance Certificates from pilot RSI program.

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
June 12, 1998	California Department of Transportation granted variance from State Noise Standards for LAX.
June 25, 1998	Inglewood submits request for \$16 million of SFP funds to match FAA grants NJ through NN, with half the funds to be used in sound insulation and half for property acquisition.
June 26, 1998	Noise Management Bureau presents the findings of its Monterey Park Noise Monitoring Analysis at the FAA Southern California Task Force meeting. The study was conducted at the request of the City of Monterey Park and the Task Force. The results were that Monterey Park had numerous arrival overflights bound for LAX, although the daily number fluctuated significantly, but that the noise levels were not sufficient to be "significant" based on regulator standards.
June 30, 1998	Inglewood submits its 1998 updated ANMP for LAWA review.
June 30, 1998	L. A. County submits draft copy of Building Code changes and Building Code Manual changes for LAWA review.
June 30, 1998	L. A. County submitted revised residential sound insulation specifications. These included some, but not all of the corrections sought in the Noise Management Bureau letter of May 4, 1998. They also expanded the scope of the project from 9 unit to 17 units.
July, 1998	Department applied to the California Department of Transportation for a three-year variance from State Noise Standards for ONT.
July 2, 1998	Noise Management Bureau published the Aircraft Noise Mitigation Program for ONT.
July 6, 1998	El Segundo begins construction of an initial group of 71 homes in its sound insulation project. El Segundo has chosen not participate in LAWA funding for the project since it is unwilling to require avigation easements. El Segundo's project is funded 80% by the FAA and 20% by the participating homeowners.
July 7, 1998	Ontario submits a property acquisition Project Report (AIP#3-06-0175-N4) for LAWA review.
July 8, 1998	FAA modified aircraft handling procedures to ensure that jet aircraft departing LAX using the LOOP departure procedure will be more likely to cross the shoreline at LAX, rather than over the Beach Communities to the south. This came about as the result of the Southern California Task Force, a joint effort of the FAA, Los Angeles World Airports, and others.
July 13, 1998	Inglewood submits its 1998 Project Report for LAWA review. This document attempts to fulfill reporting requirements using an unorthodox format.
July 14, 1998	Noise Management Bureau responds to L. A. County draft Building Code changes and Building Code Manual changes (submitted June 30, 1998), explaining why these changes do not meet LAWA requirements and indicating that further review from Wyle and City Attorney has been requested.

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
July 20, 1998	Noise Management Bureau responds to revised Ontario Grant Implementation Plan submitted April 24, 1998. Several issues need to be resolved and further revisions submitted before the GIP can be approved. An already completed portion of the plan should be submitted as a Project Report.
July 20, 1998	Noise Management Bureau forwards not-previously-sent August 4, 1997 comments on the L. A. County ANMP of March 26, 1997. The County was asked to incorporate the needed corrections into the 1998 updated ANMP (originally due May 1, 1998).
July 22, 1998	FAA implemented a new turboprop departure procedure at LAX, that will prohibit the issuance of turns beyond a heading of 200 degrees until the aircraft has climbed above 3000 feet. This ensures that turboprop aircraft are higher when they cross back over the shoreline. This came about as the result of the Southern California Task Force, a joint effort of the FAA, Los Angeles World Airports, and others.
July 1998	FAA implemented a new turboprop departure procedure at LAX, that will prohibit the issuance of turns beyond a heading of 200 degrees until the aircraft has climbed above 3000 feet. This ensures that turboprop aircraft are higher when they cross back over the shoreline. This came about as the result of the Southern California Task Force, a joint effort of the FAA, Los Angeles World Airports, and others.
July 27, 1998	Ontario submits a sound insulation Project Report (AIP#3-06-0175-N2) for LAWA review.
August 1998	FAA modified procedures so as to keep aircraft departing ONT from overflying the City of Claremont. This came about as the result of the Southern California Task Force, a joint effort of the FAA, Los Angeles World Airports, and others.
August 1998	FAA modified procedures so as to keep aircraft departing ONT from overflying Claremont. This came about as the result of the Southern California Task Force, a joint effort of the FAA, Los Angeles World Airports, and others.
August 6, 1998	Inglewood submits its Phase II, Part 1, Group 2 sound insulation specifications for LAWA review.
August 10, 1998	Noise Management Bureau responds to revised L. A. County residential sound insulation specifications. The County is authorized to begin construction contingent upon its submittal of a certification that the specification meet all LAWA requirements.
August 12, 1998	FAA implemented traffic management procedures designed to reduce the number of LAX approaches that overfly Monterey Park on an extended downwind leg. This came about as the result of the Southern California Task Force, a joint effort of the FAA, Los Angeles World Airports, and others.
August 1998	FAA implemented traffic management procedures designed to reduce the number of LAX approaches that overfly Monterey Park on an extended downwind leg. This came about as the result of the Southern California Task Force, a joint effort of the FAA, Los Angeles World Airports, and others.

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
August 24, 1998	Wyle Labs submits review of technical aspects of L. A. County draft Building Code changes and Building Code Manual changes.
August 26, 1998	Noise Management Bureau responds to the Inglewood Phase II, Part 1, Group 2 sound insulation specifications, commenting that not all requirements cited in the April 12 response to the Group 1 specifications had been met in the Group 2 specifications and that the revised Group 1 specifications called for then are still lacking.
August 31, 1998	First pre-hearing conference for Van Nuys Airport Title 21 Noise Variance is held at the Airtel Plaza.
September 1, 1998	Noise Management Bureau responds to an August 18, 1998 request by L. A. County for additional funds to prepare 1998 updated ANMP. To eliminate additional cost, the County is permitted to instead submit a corrected 1997 ANMP, due September 30, 1998, and a letter including information that would have appeared in the updated ANMP and CAPR.
September 1, 1998	Ontario submits revised 1998 Grant Implementation Plan.
September 2, 1998	Noise Management Bureau staff meets with Inglewood and Wyle Laboratories staff to discuss LAWA requirements for eligibility of non-habitable rooms for noise mitigation measures. Agreement is reached on which rooms can be eligible and what information is required to substantiate that eligibility. Similar standards will apply to all participating jurisdictions.
September 2, 1998	Ontario requests by letter that it be allowed to use LAWA matching funds to purchase a property outside the projected 100% Stage 3 eligibility contour.
September 17, 1998	L. A. County submits certification that its revised residential sound insulation specifications meet all LAWA requirements. This fulfills the final requirement in the conditional approval to proceed with construction given August 10, 1998.
September 30, 1998	L.A. County (Ray Gomez) indicates in a phone call that Wyle will submit the revised ANMP to them on October 2, 1998 and they will submit it about one week later. Wyle (Alex Lung) indicates in a phone call that Wyle has done no work since L. A. County has not given Wyle authorization to proceed. Noise Management Bureau informs L. A. County. (Next week, Wyle indicated to Noise Management Bureau that the County's authorization had been received and work had begun.)
October 1998	Noise Management Bureau shifts the "gate" used for northern-boundary early turns at LAX slightly south, following a request by City Council staff and the public. This moves the detection boundary south of the airport's northern boundary, and sets it a comparable distance from the runway as the boundary on the south (Imperial Highway).
October 6, 1998	NMB verbally approves revised construction specifications for Groups 1 & 2 of the Inglewood RSIP. The revision had been submitted 9/28/98. It followed a 9/2/98 meeting in which NMB, Wyle and Inglewood reached agreement on interpretation of LAWA restrictions on insulation of non-habitable rooms.

Chronology of Noise Reduction Efforts

Los Angeles World Airports

Date	Event
October 13, 1998	BOAC approves resolutions allocating \$16 million to Inglewood and \$1.5 to Ontario for noise mitigation activities.
October 15, 1998	Ontario submits 1998 property acquisition Grant Implementation Plan for LAWA review.
October 26, 1998	Second pre-hearing conference for Van Nuys Airport Title 21 Noise Variance is held at the Airtel Plaza.
November 2, 1998	NMB receives Ontario's Plans and Specifications for soundproofing of 117 dwelling units under FAA grant N9.
December 1998	FAA HOLTZ departure procedure was implemented to reduce jet "early turns" at LAX (Jeppesen publication 12/31/98). This was the first RNAV departure procedure in the United States, and came about as the result of the Southern California Task Force, a joint effort of the FAA, Los Angeles World Airports, and others.
December 20, 1998	Various newspaper articles announce LAWA commitment to insulate incompatible residences in the vicinity of Van Nuys Airport.
Today	Noise Management Bureau continues to use the ANMMS at LAX to provide prompt notification of early turns and selected deviations from in-flight procedures to the FAA and offending airlines, usually within a few days of the incident, and sends formal notice to the airlines and interested parties after receiving FAA confirmation of pilot initiation. This is beyond the requirements of the June, 1991 agreement on early turns that called for monthly reports. NMB also continues to provide monthly notifications of all early turns.